

Navy Training Works with the Environment

Navy Takes Care of the Oceans While Providing Realistic Training

THE NAVY PUTS environmental concerns at the forefront every time a ship trains at sea, a process which includes rigorous mitigation efforts.

Any time a U.S. Navy ship trains at sea—whether launching missiles or detecting threats with sonar or simply dropping anchor—Sailors consider what effect their actions have on the environment.

The Navy places environmental concerns at the forefront during training, from basic unit-level exercises to complex war games involving dozens of ships, submarines and aircraft plus thousands of personnel.

“We do everything we possibly can to preserve this delicate ecosystem we live in,” White said. “Our commanders must remain aware of the environment at sea to be effective leaders, and they demand that their crews understand the impact their units, sensors and weapons have on that environment.”

White said the Navy works hard to take care of the oceans, while at the same time creating realistic training in the most demanding military range of operations—the Navy operates at sea, on land and in the air—to make sure Sailors are prepared for real-world threats.

encounter when they enter into these areas of the world.”

Environmental concerns, as well as the Navy’s training needs, are considered during every aspect of exercise planning, according to Captain Aaron Jacobs, Commodore of Destroyer Squadron 24 (DESRON 24). The squadron’s responsibilities include planning and executing exercises for CSFTL.

“We are aligned with Navy policy,” Jacobs said. “On a more personal level, I’m a Sailor and a diver, preserving our environment and marine life is important to me.”

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—Rear Admiral Garry R. White

“We recognize that the Navy is a part of the environment we operate in, and if one is impacted negatively, both are impacted,” said Rear Admiral Garry R. White, Commander, Strike Force Training, Atlantic (CSFTL) in Norfolk, Va. CSFTL oversees training for the U.S. Second Fleet, which operates primarily in the Atlantic Ocean.

“It is critical that our Carrier Strike Groups, Amphibious Ready Groups, independently deploying units, and, most importantly, our Sailors that we are deploying and potentially sending into harm’s way are fully prepared to handle any contingency they may encounter,” White said. “The most effective way to do this is by replicating what they are likely to

During planning, the squadron sends detailed exercise plans to the Navy’s U.S. Fleet Forces Command (USFF) Operations Environmental Support Branch for review, a significant step in the environmental protection process.

“We include the details of the exercise, such as whether we will be using active sonar or live gunfire, where the

exercise will take place and when,” Jacobs said. “From this, the Operations Environmental Support Branch develops mitigation procedures designed to lessen the impact on the environment as much as possible while maintaining quality training.”

DESRON24 sends all exercise participants messages detailing the mitigation measures, and reinforces procedures during pre-exercise conferences. Coalition partners from other nations are informed of any restrictions or measures.

CSFTL Chief of Staff Captain John M. Kersh was previously assigned at Naval Station Mayport in Jacksonville, FL, near calving grounds of the endangered North Atlantic Right Whale. There he gained valuable experience incorporating specific environmental measures during training.

Exercise planners include environmental mitigations early in the process, building them seamlessly into the daily rhythm of the ship.

“Exercises are planned months in advance,” Kersh said. “We know when they will be, and we build in all these measures from the beginning. We reach out to subject matter experts and pull them into the process as well. This way we are able to take care of our environmental impact and meet our training needs at the same time.”

Planning for environmental contingencies helps Navy leaders get better at their jobs, according to Kersh.

“Maritime exercises and anti-submarine warfare training are complex undertakings anyway, and incorporating these measures adds another level of benefit as it makes us better planners,” he said.



Boatswain's Mate Seaman Kossivi Ahonkloo looks through his binoculars while standing an aft lookout watch aboard the guided-missile destroyer USS PORTER (DDG 78). PORTER was participating in a group sail activity in the Atlantic Ocean to prepare for its role with DESRON 24 in an upcoming Joint Warrior exercise.

Mass Communication Specialist 3rd Class Candice Villarreal

The Navy's approach to mitigating possible environmental impacts of live training are broken down into three general areas—avoidance, minimization and monitoring.

First, the Navy strives to avoid any environmental impact. When this is not possible mitigation measures are put in place; these are continually monitored and updated. Marine Species Awareness Training (MSAT) and the Protective Measures Assessment Protocol (PMAP) system are

examples of Navy programs designed to ensure the protection of the maritime environment.

The Navy requires all personnel standing watch, as well as aircraft crews, to go through MSAT. Training includes education on environmental protection, legal requirements, Navy stewardship commitments and identifying various marine mammals. While all bridge personnel, or watchstanders, keep an eye on the horizon, any

time a ship or surfaced submarine moves through the water it is the lookouts which are key in monitoring the marine environment, looking for any changes or disturbances which might indicate marine mammals and other marine life, such as sea turtles.

When a lookout spots a marine mammal the bridge team begins pre-planned responses, which can include changing course or speed and warning nearby Navy ships, even those not involved in training, to temporarily adapt procedures as needed. Other standard mitigations involve travel-

USFF Annual Exercise Schedule

THE SCHEDULING OF naval exercises is driven by global force presence requirements and rotations of assets. Although these exercises do not occur on a regular seasonal rotation, the table below provides some insights into what the yearly exercise schedule might look like in any given year. On average, USFF on the east coast sponsors two Carrier Strike Group Fleet Response Training Plans (FRTTP), two Amphibious Readiness Group FRTTPs and about 25 independent deployers per year—some years more, occasionally less.

WHAT	FREQUENCY	WHERE	DETAILS
Joint Task Force Exercise (JTFEX): Exercise designed to build upon previous demonstrated Battle Group competencies across all warfare areas. Consists of a nominal 21 days underway, usually conducted six to eight weeks prior to deployment.	Two to four times per year	Typically Dam Neck, VA south to Jacksonville, FL	<ul style="list-style-type: none"> ■ Integrated joint training ■ Complex live training events—involves several ships, submarines and aircraft ■ May include participants from other services and other nations ■ Centers on a Carrier Strike Group or Amphibious Ready Group ■ Includes a collection of ships, aircraft and support elements designed to certify forces in maritime operations and command & control
Composite Training Unit Exercises (COMPUTEX): Exercise performed by each Carrier Strike Group before departing for a six-month deployment.	Two to six times per year	Typically Dam Neck, VA south to Jacksonville, FL	<ul style="list-style-type: none"> ■ Integrated training ■ Complex live training events—involves several ships, submarines and aircraft ■ May include participants from other services and other nations ■ Centers on a Carrier Strike Group or Amphibious Ready Group ■ Includes a collection of ships, aircraft and support elements designed to conduct integrated at-sea & amphibious combat operations ■ Designed to forge the battle group into a cohesive, fighting team
Southeast Anti-Submarine Warfare (ASW) Integration Training Initiative (SEASWITI): Exercise that provides a learning forum in the Southeast region to enhance the effectiveness and quality of ASW training by coordinating assets, knowledge and technology.	Two to four times per year	South Carolina south to Florida	<ul style="list-style-type: none"> ■ Designed to increase ASW readiness and proficiency training throughout the fleet ■ Week-long coordinated multi-platform exercise ■ Incorporates non-ASW events such as gunnery exercises and counter piracy
Other exercises as needed	As needed to support emergent requirements	East Coast and Gulf of Mexico	<ul style="list-style-type: none"> ■ Mine warfare ■ Air warfare ■ Anti-piracy



All Officers of the Deck, like Michael Lundahl aboard the guided-missile destroyer USS MAHAN (DDG 72), are responsible for safe execution of the ship's plan and navigation, while ensuring that the ship operates in accordance with environmental directives.

Mass Communication Specialist 2nd Class Jason R. Zalasky

Exercise planners include environmental mitigations early in the process, building them seamlessly into the daily rhythm of the ship.

ling at safe speeds for avoiding collisions with marine mammals and increased vigilance when whale or other animal activity is spotted.

As Officer of the Deck aboard the guided-missile destroyer USS MAHAN (DDG 72) Lieutenant (junior grade) Michael Lundahl is responsible for safe execution of the ship's plan and navigation, while ensuring that the ship operates in accordance with environmental directives.

"Since I arrived onboard my first ship, I have been trained to navigate the ship to avoid a whale if it surfaced in front of the ship," Lundahl said. "I also know that sonar must be reduced in power or secured based on the presence of marine mammals. The orders are updated through regular training...and the Commanding Officer's nightly orders to the watch team."

That training becomes second nature to Sailors on watch, and Lundahl said he is simultaneously aware of the natural beauty around him. He has seen numerous schools of dolphins playing in a ship's wake and whales surfacing in the Pacific Ocean.

"I was mindful of where the last known position was relative to the ship and if it were possible for marine mammals to get close enough to be hit," he said. "Personally, it was a glorious experience witnessing the majestic beauty of the largest of Earth's creatures."

Civilian marine biologists sometimes go to sea with the Navy to help watch for and identify marine mammals, and to conduct counts of animal populations to help clarify what species are present in the training areas and determine if the training has any effect on animal behavior.

The PMAP software system is a set of standard operating protective measures, policies and planning tools for all levels of at-sea training. Using PMAP, Navy commanders can input training plans and locations and immediately receive detailed environmental information, including graphic representations of protected and sensitive areas such as coral reefs or marine sanctuaries, and relevant guidelines to comply with Navy and federal government regulations.

The Navy must comply with federal laws including the National Environmental Policy Act, the Marine Mammal Protection Act, the Endangered Species Act and the Clean Water Act. The National Marine Fisheries Service and the U.S. Environmental Protection Agency are major partners in this effort.

The USFF Environmental Readiness Division and Fleet Area Control &



Members of a visit board, search and seizure team race toward a simulated suspect vessel during a COMPUTEX—a joint and combined training exercise to prepare for deployment by certifying readiness in a number of mission areas.

Cryptologic Technician (Maintenance) 2nd Class Alberto Delgado

Surveillance Facilities (FACSFAC) are vital links in studying the environments in which the Navy trains. Their responsibilities include developing in-depth Environmental Impact Statements (EIS), creating and updating mitigation measures and ensuring compliance with federal laws.

“We have established a long-standing relationship with the USFF environmental team and the environmental planners serving the FACSFAC,” White said. “As a result of the work with these teams, we have developed a complex geography that takes the

requirements and cautions in the existing EISs into account during exercise design and into execution.”

It is a process which the Navy constantly updates and refines in partnership with top scientists, federal government agencies and the public, according to Hank Eacho, head of the USFF Operations Environmental Support Branch.

“We are always looking ahead, applying the best available science, getting feedback from commanders in the field, implementing new

measures and studying how effective they are,” Eacho said.

Specific mitigation measures apply to particular training efforts such as “live fire” events, surface to surface, small arms training, air to surface bombing, mine countermeasures and sonar use.

In particular, the Navy is judicious in its use of sonar, a crucial tool required to stay ahead of emerging threats. The Navy uses two types of sonar—active and passive. Passive sonar involves listening to sounds through underwater microphones, while active sonar

systems send out sound waves to be analyzed as they bounce off objects in the water. Sonar is a complex system which requires highly-trained operators.

“Sonar is important as it is the Navy’s eyes and ears below the water,” White said. “More countries are acquiring submarines and as the technology improves, these platforms are becoming quieter and harder to detect. Sonar is vitally important to our training. We must (and do) design exercises where we are not unduly limited by the environment; exercises where our operations and protecting the environment and every species in it are compatible.”

and radar systems and live fires. This phase involves classroom and in-port synthetic training as well as live exercises.

The integrated training phase brings together individual ships or groups to train together as a large, combined force.

Composite Training Unit Exercises (COMPTUEX) are part of the integrated phase of training. These are complex live training events which involve a large number of ships, submarines and aircraft, including participants from other services and other nations. The exercises usually

include a Joint Task Force Exercise, an event which focuses on training battle group staffs. Command and control and decision-making are the primary focus of these exercises.

The schedule for live Navy exercises on the East Coast remains fluid, depending on training needs. Exercise planners work with USFF and the Chief of Naval Operations to keep the public involved and informed as much as possible.

All these efforts, from the highest Navy leadership to the Sailor standing watch, go into making Navy training as safe, challenging and environmentally responsible as possible.

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—Rear Admiral Garry R. White

Sonar mitigation measures include additional lookouts, establishing safety zones and reducing or securing the sonar if marine mammals are sighted in the safety zones.


The Navy breaks down training into three general phases—basic, integrated and sustainment. The Navy often uses the concept of “crawl, walk, run” when referring to the training cycle, and puts measures in place to protect the environment at every step along the way.

The basic training phase focuses on individual ships and Sailors and is also called unit-level training. This phase involves training for one ship, submarine or aircraft or small groups. Sailors and staff work on basic skills such as navigation, seamanship, communications, sonar

center on a Carrier Strike Group, including an aircraft carrier, Carrier Air Wing and support elements, or Amphibious Ready Group, a collection of ships, aircraft and support elements designed to conduct amphibious operations.

“A COMPTUEX is the Navy’s most arduous and dynamic pre-deployment exercise which trains to the widest range of missions, functions and tasks,” said Jim Casey, a member of the Integrated Training Branch at USFF. “It involves the most days at sea, a wide variety of ships, aircraft and support elements, and typically includes the greatest amount of weapons training and ordnance expenditure.”

The sustainment training phase, designed to keep the Navy at the highest level of readiness, might

“Going to sea is what we do, it is where our mission lies,” White said. “While we must always consider the resources required to generate and maintain a world-wide deployable force, we can never forget that the resources of time, money and more importantly, the environment, cannot be taken for granted. Generations of Americans have come to depend on our ability to deliver a secure nation through the ability to train naval forces at sea. Equally, they deserve to inherit the bounty and the beauty of the sea.” 

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